Sarah Eichmeyer
Department of Economics
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October 9th, 2019

To whom it may concern,

My name is Sarah Eichmeyer and I am a fourth-year PhD student in Economics at Stanford University. I am writing to apply for the NBER Health Economics Research Boot Camp.

The recommendation letter to this application was written by my PhD advisor Prof. Matthew Gentzkow. He has submitted the letter today, on October 10th, 2019.

Thank you for your consideration.

Kind regards,

Sarah Eichmeyer

Sarah Eichmeyer

Contact

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Education

Ph.D. in Economics (expected), Stanford University, 2016-21.
Visiting Student Researcher, Stanford University, 2015-16.
Ph.D. coursework in Economics, Stockholm University, 2014-2015.
M.Sc. in Economics, University of Zurich, 2011-14.
Erasmus Exchange Studies, University of Copenhagen, 2010-11.
B.A. in Economics, University of Heidelberg, 2008-11.

References

Matthew Gentzkow
Economics Department, Stanford University
+1 (650) 721-8375
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Petra Persson
Economics Department, Stanford University
+1 (650) 723-4116
perssonp@stanford.edu

Fields

Primary field:	Public Economics
Secondary fields:	Health Economics, Labor Economics, Economics of Digitization

Research papers

The Welfare Effects of Social Media *(with Hunt Allcott, Luca Braghieri and Matthew Gentzkow)*

Research in progress

The Effects of an Emergency Department Opioid Prescription on Long-Term Outcomes *(with Jonathan Zhang)*

Why Does Diversity Matter for Health? A Field Experiment *(with Marcella Alsan)*

Health Shocks and Homelessness: Evidence from Administrative Data *(with Christina Kent)*

Broadband Internet Subsidies and Educational Success

Scholarships, Honors, and Awards

2019-20 Stanford Center on Philanthropy and Civil Society fellowship.
2019 Buckley Memorial Award for best 2nd year paper.
2019 Funding from VA HSR&D for project on opioid prescribing in Emergency Departments.
2016-17 Scholarship for studies abroad, Jan Wallander and Tom Hedelius foundation.
2015-16 Scholarship for studies abroad, Royal Swedish Academy of Sciences (KVA).
2010-14 Scholarship for academic studies, Foundation of German Business (sdw).

Relevant Positions

2017-18 Research Assistant to Prof. Luigi Pistaferri, Stanford University.
2013-14 Research Assistant to Prof. Daniel L. Chen, ETH Zurich.
2012-13 Research Assistant to Timo Boppart, University of Zurich.

Teaching Experience

2019 Teaching Assistant to Marcelo Clerici-Arias, Undergraduate Behavioral Economics.

Refereeing

Journal of Health Economics.

Languages

German: native. English: fluent.

Completed PhD courses[1]

First-year courses:

Micro I (Ilya Segal, Paul Milgrom)

Micro II (B. Douglas Bernheim, Ilya Segal)

Micro III (Matthew Jackson)

Intermediate Econometrics II (Han Hong)

Intermediate Econometrics III (Guido Imbens)

Macro I (Martin Schneider, Monica Piazzesi)

Macro III (Gregor Jarosch, Pablo Kurlat)

Second-year courses:

Machine Learning and Causal Inference (Susan Athey, Stefan Wager)

Quantitative Methods for Empirical Research (Guido Imbens)

Public Economics I (Raj Chetty)

[1] All courses listed were taken at Stanford.

Public Economics III (Petra Persson)

Labor Economics I (Luigi Pistaferri)

Labor Economics III (Isaac Sorkin)

Behavioral and Experimental Economics I, II, III (B. Douglas Bernheim, Muriel Niederle)

Political Economy I (Francesco Trebbi)

October 10th, 2019
Sarah Eichmeyer

Essay

My name is Sarah Eichmeyer and I am a fourth-year PhD student in Economics at Stanford University. My research interests are in health economics. In particular, I use field experimental and applied microeconomic methods to uncover the economic, institutional and procedural roots of health inequalities and adverse health outcomes.

I would be excited to attend the NBER health econ workshop for three reasons: 1) Learn from leading researchers in the field about new topics, methods and data available in health economics, 2) get to know other students in my field, learn about their ideas and projects, and initiate new collaborations, and 3) get feedback on my ideas.

In what follows, I will briefly outline the ideas and projects I am currently working on, as well as the topics that interest me.

The opioid epidemic: Understanding the role of physician prescribing behavior

This project is joint work with Jonathan Zhang, who is a fellow Econ PhD student at Stanford. We use administrative data from the Veterans Health Administration (VHA) to study the impact of receiving an opioid prescription in the Emergency Department (ED) on patients' long-term use and abuse, and on morbidity and mortality. For identification, we exploit variation across ED physicians (within the same hospital) in their tendency to prescribe opioids, in conjunction with quasi-random assignment of patients to physicians in the ED. We find that exposure to prescription opioids significantly, and lastingly increases long-term use of opioids for patients on the margin. We find evidence for the increased use being demand-driven, and that patients use legal channels (their PCP) to satisfy their increased demand when those channels are available, and use illicit opioids othewise.

Health shocks, homelessness, substance abuse and access to short-term insurance

This project is joint work with Christina Kent, who is an Econ Phd student at Stanford, too. We use administrative data from the VHA on all veterans, and administrative data on Medicaid-insured individuals from Allegheny County, PA, to study to what extent health shocks can trigger paths into substance abuse, extreme poverty, and homelessness. For identification, we use the fact that the exact timing of certain health shocks (such as injuries, strokes and heart attacks) is quasi-random, allowing us to compare individuals who experience the same health shocks at different points in time. The mechanism we have in mind operates through a short- to medium-term negative income shock that is due to job loss. Accordingly, we plan to study whether access to and generosity of short-term welfare and insurance programs such as General Assistance (GA), TANF and paid sick leave can help mitigate the negative impact of health shocks. Both GA, TANF and paid sick leave policies vary significantly in availability, eligibility criteria, and generosity across time and space, providing ample sources of variation. Our findings could have important implications for optimal policy design. For example, if we found that health shocks do indeed trigger "downward spirals"

for the economically vulnerable populations we study, changes to upstream insurance and welfare programs that better cover income losses form short-term health shocks could be optimal.

Why does diversity matter for health?

Together with Marcella Alsan from the Kennedy School, I am developing and deploying a field experiment this Fall that seeks to uncover the mechanisms through which race concordance in patient-physician relationships facilitates preventive-care take-up especially among minority groups. We expose participants recruited online to infomercials displaying physician-actors who present information about the flu vaccine, randomly varying the script and the race of the physician-actor. We then survey participants about their valuation, beliefs and attitudes around the flu vaccine, and provide them with a coupon for a free flu shot, whose redemption we track.

Future topics

One topic I would like to study in the future is that of the role of parental socio-economic background for the direction of innovation, and its consequences for health inequality. Basically, I would like to find out to what extent a medical researcher's or medical innovator's choice of specialization in terms health condition is related to the prevalence of said condition in the researcher's social environment (and especially among family members). If there is a strong correlation between the two, and if the relative prevalence of different health conditions varies across the socio-economic spectrum, this could have important implications for health inequality and could inform the debate about the extent to which we should invest in programs that aim to increase representation of low-income and minority groups in the fields of medical science and innovation.

Thank you for your consideration.

Sincerely,

Sarah Eichmeyer

Stanford

Matthew Gentzkow
Professor of Economics

October 10, 2019

Dear Colleagues,

I enthusiastically recommend **Sarah Eichmeyer** for the NBER health economics boot camp. Sarah is a PhD student in the Stanford economics department and I have worked with her as both an advisor and a co-author.

Sarah is a health economist who focuses particularly on issues affecting disadvantaged groups. She has an outstanding completed paper on the long-term impact of opioid prescriptions for veterans which her co-author Jonathan Zhang is using as his job market paper this year. She is at the early stages of an ambitious project on the way the racial and gender makeup of the pool of health care providers affects female and minority patients. She also has work outside of health economics including a paper on the impact of social media that is forthcoming at *AER*.

Sarah and Jonathan's opioid project looks at the downstream impact of receiving a single opioid prescription in the ER using data from the Veterans Health Administration. They use quasi-random assignment of ER physicians as a source of exogenous variation in prescriptions. They show that patients assigned more or less lenient physicians look identical on prior prescriptions and a wide range of observables prior to their visit to the ER but that they diverge sharply afterwards. Those who get an ER prescription due to being assigned a more lenient physician are more likely to be using prescription opioids more than a year later, are more likely to be treated for opioid overdoses, and are more likely to die from overdoses. The authors also show suggestive evidence pointing to transitions to elicit opioid use as an important part of the causal pathway, particularly in settings where the supply of legal opioids is restricted.

Sarah's new work in progress, which is joint with Marcela Alsan, focuses on the interaction between the race and gender of patients and of physicians. Prior evidence suggests that minority patients assigned same-race physicians have better outcomes on a number of measures. Sarah plans to use a combination of field experiments and administrative data to paint a broader picture of the way the race and gender composition of the physician pool impacts patient welfare. This includes both estimating the value patients themselves place on physician characteristics via revealed preference and expanding the base of evidence on the impact side.

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Sarah's social media project (joint with me, Hunt Allcott, and Luca Braghieri) uses a randomized field experiment to study the impact of quitting Facebook on a wide range of psychological and political outcomes. I will not go into detail about this project except to say that Sarah played a central role in the planning, execution, and analysis.

I have been incredibly impressed with Sarah in my interactions with her so far. She began her graduate studies in Stockholm, and originally came to Stanford as a visiting student. During that year she was one of the standout students in the PhD class that I teach, and our whole department was sufficiently impressed with her that we invited her to transfer and complete her PhD here. Since then she has shown great ability in both coursework and development of preliminary research ideas. I expect her to rank high in her cohort when she completes graduate school and enters the job market.

Bottom line, I give Sarah my strongest endorsement for this program. Please don't hesitate to contact me if I can provide any additional information.

Sincerely,



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